

In the Claims:

1. (Currently Amended) A cell disposal avoidance system in a buffer, said buffer including category buffers classified by category in an ATM switch, said category buffers each for storing a cell, said buffer reading out said cell, said system comprising:

a weight representing the priority that determines the reading rate for each of said category buffers ~~at a cell reading time;~~

a reader for laying out allocation in a time division mode according to said priority mode, said allocation being read out of each of said category buffers when a cell in a buffer is read out, and reading out said allocation in a round-robin format;

a detector for detecting cell disposal of said buffer; ~~and~~

a controller for changing to higher weight of the priority mode in a buffer in a cell disposal state detected by said detector;

an informer for informing said maintenance terminal of the fact that said buffer in a cell disposal state has stopped its cell disposal; and

a first resetting unit for resetting a weight representing the priority mode of said buffer in a cell disposal state by commands input by said informer.

2. (Currently Amended) The cell disposal avoidance system defined in Claim 1, further comprising a ~~second~~first resetting unit for resetting a weight representing the priority mode of the buffer when the cell disposal of said buffer stopped.

3. (Currently Amended) The cell disposal avoidance system in Claim 1, wherein the higher weight of the priority mode ~~a priority mode changed by said controller and an initial priority mode before changing~~ are informed to a maintenance terminal.

4. (Cancelled)

5. (Currently Amended) A cell disposal avoidance system in a buffer, said buffer including category buffers classified by category in an ATM switch, said category buffers each for storing a cell, said buffer reading out said cell, said system comprising:

a priority mode representing a ~~weight of a reading rate~~ weight assigned to each of said category buffers ~~at a cell reading time~~;

a reader for laying out allocation in a time division mode according to said priority mode, said allocation being read out of each of said category buffers when a cell in a buffer is read out, and reading out said allocation in a round-robin format;

a detector for detecting the fact that the capacity of said buffer exceeds a first threshold; and

a first controller for changing to a higher value the reading rate weight of a priority mode of a buffer when the detector detects that the first threshold has been exceeded ~~which exceeds the threshold detected by said detector; and~~

when the capacity of a buffer exceeding said first threshold reaches a second threshold, lower than said first threshold, a first resetting unit resets a weight representing the priority mode of said buffer.

6. – 7. (Cancelled)

8. (Currently Amended) The cell disposal avoidance system defined in Claim 5 ~~Claim 6~~, further comprising, when the capacity of a buffer ~~exceeding said first threshold~~ reaches a third threshold value being less than said second ~~first~~ threshold, a second controller ~~sets for setting~~ the priority mode of said buffer to a weight lower than that of said first controller.

9. (Currently Amended) The cell disposal avoidance system defined in Claim 5, wherein the higher value of the weight of the priority ~~a priority mode changed by said first or second controller and an initial priority mode before changing~~ are informed to a maintenance terminal.

10. – 11. (Cancelled)

12. (Currently Amended) A cell disposal avoidance system in a buffer, said buffer including category buffers classified by category in an ATM switch, said category buffers each for storing a cell, said buffer reading out said cell, said system comprising:

a priority mode representing a reading rate weight assigned to each of said category buffers;

a reader for laying out allocation in a time division mode according to said priority mode, said allocation being read out of each of said category buffers when a cell in a buffer is read out, and reading out said allocation in a round-robin format;

a detector for detecting the fact that the capacity of said buffer exceeds a first threshold;

a first controller for changing to a higher value the reading rate weight of a priority mode of a buffer when the detector detects that the first threshold has been exceeded; and

~~The cell disposal avoidance system defined in Claim 5, further comprising:~~

~~an informer for informing a maintenancesaid-maintenance terminal of the fact that the capacity of said buffer exceeding said first threshold reaches said second threshold; and~~

~~a second-resetting unit for resetting the reading rate weight to a weight representing the priority mode of a buffer exceeding said first threshold, by a command input by said informer.~~

13. (Currently Amended) The cell disposal avoidance system defined in Claim 1, wherein said category represents the type of QoS class in accordance with a header within ~~an area of~~ said cell and a cell path ~~set in the area~~.

14. (Currently Amended) The cell disposal avoidance system defined in Claim 5, wherein said category represents the type of QoS class in accordance with a header within ~~an area of~~ said cell and a cell path ~~set in the area~~.

15. (Currently Amended) A cell disposal avoidance method suitable in a buffer, said buffer including category buffers classified by category in an ATM switch, said category buffers each for storing cells~~storing a cell~~, said buffer reading out said cell, said method comprising the steps of:

setting to a higher level a cell reading priority of a buffer in which cell disposal occurs due to~~in~~ congestion of said buffer; and

changing a period during which cells are read from a buffer in a cell disposal state, in accordance with the higher level of cell reading a priority~~priority and a priority~~ allocated to each of said category buffers, to speed the reading rate of said congested buffer; and

when cell disposal occurs in a category buffer, informing a maintenance terminal of said higher level of cell reading priority and a priority with an initial value.

16. (Original) The cell disposal avoidance method defined in Claim 15, further comprising the steps, of:

when said buffer in which cell disposal occurs stops cell disposal, resetting the cell reading priority of said buffer to an initial value; and

resetting a period during which a cell is read out of each of said category buffers to an initial state, according to a priority allocated to each of said category buffers.

17. (Cancelled)

18. (Currently Amended) The cell disposal avoidance method defined in Claim 15, further comprising the step of, when a buffer in a cell disposal occurrence state stops its cell disposal, ~~informing a~~ informing said maintenance terminal of a cease of the cell disposal.

19. (Currently Amended) A cell disposal avoidance method suitable in a buffer, said buffer including category buffers classified by category in an ATM switch, said category buffers each for storing cells, said buffer reading out said cell, said method comprising the steps of:

setting to a higher level a cell reading priority of a buffer in which cell disposal occurs due to congestion of said buffer;

changing a period during which cells are read from a buffer in a cell disposal state, in accordance with the higher level of cell reading priority and a priority allocated to each of said category buffers, to speed the reading rate of said congested buffer;

~~The cell disposal avoidance method defined in Claim 15, further comprising the steps of:~~

when ~~a maintenance~~said maintenance terminal inputs a command for resetting to an initial value after said maintenance terminal has received information on a cease of cell disposal, resetting to an initial value a cell reading priority of said buffer in a cell disposal halt state; and

resetting a period during which a cell is read out of each of said category buffers, to an initial state, in accordance with a priority allocated to each of said category buffers.

20. (Currently Amended) A cell disposal avoidance method suitable for a buffer, said buffer including category buffers classified by category in an ATM switch, said category buffers each for storing a cell, said buffer reading out said cell, said method comprising the steps of:

when the capacity of said buffer exceeds a first threshold, setting to a higher level a cell reading priority of said buffer; and

changing a period during which a cell is read out of a buffer exceeding said first threshold, in accordance with a priority allocated to each of said category buffers, to speed a reading speed of said buffer in a cell disposal state;

when it is detected that the capacity of the buffer exceeding said first threshold reaches a second threshold, lower than said first threshold, resetting the cell reading priority of said buffer to an initial value; and

resetting a period during which a cell is read out of each of said category buffers, to an original state, in accordance with a priority allocated to each of said category buffers.

21. – 22. (Cancelled).

23. (Currently Amended) The cell disposal avoidance system defined in Claim 20~~Claim 21~~, further comprising the step of, when the capacity of a buffer ~~exceeding said first threshold~~ reaches a third threshold being lower than said ~~second~~first threshold, ~~sets~~setting the priority mode of said buffer to a threshold lower than a value set when the capacity of said buffer exceeds said first threshold.

24. (Currently Amended) A cell disposal avoidance method suitable for a buffer, said buffer including category buffers classified by category in an ATM switch, said category buffers each for storing a cell, said buffer reading out said cell, said method comprising the steps of:

when the capacity of said buffer exceeds a first threshold, setting to a higher level a cell reading priority of said buffer;

changing a period during which a cell is read out of a buffer exceeding said first threshold, in accordance with a priority allocated to each of said category buffers, to speed a reading speed of said buffer in a cell disposal state; and

~~The cell disposal avoidance system defined in Claim 20, further comprising the step of,~~

when a category buffer exceeds said first threshold, informing a maintenance terminal of ~~a the higher level cell reading priority after change of said buffer which has exceeded said first threshold~~ and a priority ~~of~~with an initial value.

25. (Currently Amended) The cell disposal avoidance system defined in Claim 20, further comprising the step of, when a buffer exceeding said first threshold stops exceeding a second threshold, lower than said first threshold, informing a maintenance terminal of the fact that said buffer has ceased cell disposal.

26. (Currently Amended) The cell disposal avoidance system defined in Claim 25, further comprising the steps of:

when said maintenance terminal inputs a command for resetting to an initial value after said maintenance terminal has received information on a cease of exceeding said second threshold, lower than said first threshold, ~~resetting a cell reading priority of a buffer which has exceeded said threshold~~, to an initial value; and

resetting a period during which a cell is read out of each of said category buffers, to an original value, in accordance with a priority of each of said category buffers.

27. (Currently Amended) The cell disposal avoidance system defined in Claim 15, wherein said category represents the type of QoS class in accordance with a header within an ~~area of said cell~~ and a cell path ~~set in the area~~.

28. (Currently Amended) The cell disposal avoidance system defined in Claim 20, wherein said category represents the type of QoS class in accordance with a header within an ~~area of said cell~~ and a cell path ~~set in the area~~.